

WHAT IS CLAIMED IS:

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1. A method of modulating mycorrhizal infection in a plant, the method comprising introducing into the plant an expression cassette containing a plant promoter operably linked to a heterologous *LNP* polynucleotide or complement thereof, wherein the *LNP* polynucleotide encodes an LNP polypeptide at least about 70% identical to SEQ ID NO:2, SEQ ID NO: 4, or SEQ ID NO: 6
 2. The method of claim 1, wherein the heterologous LNP polynucleotide is SEQ ID NO: 1.
 3. The method of claim 1, wherein the heterologous LNP polynucleotide is SEQ ID NO: 3.
 4. The method of claim 1, wherein the heterologous LNP polynucleotide is SEQ ID NO: 5.
 5. The method of claim 1, wherein the plant promoter is from an LNP gene.
 6. The method of claim 1, wherein the NBP46 polypeptide has an amino acid sequence as shown in SEQ ID NO:2.
 7. The method of claim 1, wherein the NBP46 polypeptide has an amino acid sequence as shown in SEQ ID NO: 4.
 8. The method of claim 1, wherein the NBP46 polypeptide has an amino acid sequence as shown in SEQ ID NO: 6.
 9. The method of claim 1, wherein the expression cassette is introduced into the plant through a sexual cross.
 10. The method of claim 1, wherein the promoter is linked to the *LNP* polynucleotide in an antisense orientation.
 11. The method of claim 1, wherein the promoter is linked to the *LNP* polynucleotide in a sense orientation.
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12. The method of claim 1, wherein expression of the *LNP* polynucleotide is enhanced, thereby increasing infection of the plant by a mycorrhizal fungus.

13. The method of claim 1, further comprises infecting the plant with a mycorrhizal fungus.

14. The method of claim 13, wherein the mycorrhizal fungus is *Glomus intraradices*.

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